**EDF6481 Fundamentals of Graduate Research for Education**

**Problem Set Two (Due: 11/28/11)**

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**Answer Table**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Please type the letter of your selected answer in the following table | | | | | | | | | | | | |
| Part A | | Q1 | | Q2 | | Q3 | | | Q4 | | Q5 | |
| Your Answer | | ***d*** | | ***b*** | | ***d*** | | | ***d*** | | ***d*** | |
| The following is for the instructor only | | | | | | | | | | | | |
|  | Q1 | | Q2 | | Q3 | | Q4 | Q5 | | ***Critique*** | | ***Total*** |
| Score |  | |  | |  | |  |  | |  | |  |

***Part A: Multiple Choice Questions ( 25 points )***

1. A researcher is interested in finding out if children who receive more frequent teacher approval tend to be more likely to stay on task. Which of the following best describes this type of research? (5 points)

a. Associational research

b. Basic research

c. Exploratory research

d. Case study research

Rationale for above question (optional): Although an association between frequent teacher approval and staying on task might be indicated by results, it would be best to conduct this research as a multiple case study where multiple classrooms are studied and the number of approvals and amount of time on task per student is observed and recorded for various students.

2. Which of the following terms is **NOT** characteristic of experimental research? (5 points)

a. Control of extraneous factors

b. Suggest causal linkage

c. Manipulation of treatment

d. Random assignment

Rationale for above question (optional): The purpose of experimental research is to establish causal linkage, but suggesting causal linkage is not a characteristic of experimental research.

3. *Success for All* is a comprehensive reading reform model implemented at a national level. According to the first-year study report (See Appendix A or <http://www.aera.net/publications/?id=720>), what research design was used in the program evaluation study? (5 points)

a. Action research

b. Theoretical research

c. Exploratory research

d. Experimental research

Rationale for above question (optional): This would be experimental research because the experimental group receives the treatment of the Success for All reading reform model whereas the control group does not.

4. A study on the health benefits of fish oil found no evidence of a strong protective effect against heart disease (See Appendix B or <http://jama.ama-assn.org/cgi/content/short/295/22/2613> for your REFERENCE, and you may only want to read the conclusion and no need to access the full text article). A medical doctor who has long been an advocate of supplemental fish oil questioned this finding on the basis that “even its authors wonder about its significance for healthy people who want to eat right” (See Appendix C or <http://www.time.com/time/magazine/article/0,9171,1205361,00.html>). What aspect of this study is being challenged here? (To answer this question, you only need to read the first paragraph of the article in the Appendix C: Why I Still Take My Daily Fish Oil). (5 points)

a. Objectivity

b. Randomization

c. Instrumentation

d. Generalizability

Rationale for above question (optional):

5. Which of the following characteristics distinguishes causal-comparative research from experimental research? (5 points)

a. The researcher studies two or more equivalent or closely matched groups

b. The researcher includes a large sample to increase generalizability of the findings

c. The researcher carefully controls extraneous variables to improve research validity

d. The researcher studies pre-existing groups in which the independent variable is not

manipulated

Rationale for above question (optional):

***Part B: Paper critique (75 points)***

**Instrumentation**

This study was a mixture of interview and observation. The procedure of video recording to collect data was appropriate to this study and is a strength of the study. Another strength is that the who, how, when, and where of using the instrument is explained well. The instrument also seems to be practical and affordable and the use of open-ended questions is appropriate for this interview-observation type of study and data-collection.

One weakness of this study’s instrumentation is that there was no set list of questions used by both counselors and the questions were not asked in multiple ways, as would be appropriate for an interview type of study. Also, the study interviews were only the initial interviews and were limited to 45 minutes. According to Fraenkel, Wallen, and Hyun (2011), it takes considerable time for members of a group to become comfortable with and to trust a researcher. This may be true of individuals trusting a counselor as well. Thus, the instrumentation of this study would be improved by using more than the initial interviews to collect data. This would show whether there is consistency of repeated measurements under different circumstances or different interviews and would increase the reliability of the study.

The instrumentation was limited to two types of rating for the dependent variable of self-disclosure. According to Fraenkel, Wallen, and Hyun (2011), triangulation by using multiple instruments enhances the validity of a study. The use of a Likert scale may not be appropriate for this study due to its subjective nature; it may have measured the research assistants more than it measured the participants. Therefore, these are weaknesses of this study's instrumentation.

**Validity**

Any possible bias in a study would be considered a weakness of the study. In this particular study, bias was introduced by using two white female counselors with a large difference in their ages. The older of the two counselors conducted interviews in standard English, whereas the younger of the counselors conducted her interviews in street talk. The younger counselor appearing, to the youths, as more of a peer may have an advantage of obtaining more of an openness of the youths within the interviewing process, as opposed to the results from the older of the two. The manner in which each of the counselors dressed may have introduced bias as well as the specific questions asked by each; neither of these was mentioned as being controlled.

The data also revealed more significant client gender effect with the girls displaying more self-disclosure overall, whether they were being interviewed in street talk or standard English. Although the researcher cited reference supporting the fact that females, in general, are known to be more expressive of feelings, more verbally communicative and quicker to relate interpersonally, the gender of the interviewers can arguably be a factor in the results as well.

Because participants were informed that the study was designed to improve communications, it is possible that the results were skewed due to the Hawthorne Effect, which would represent another weakness in the study.

The manner in which the participants were chosen for English or street language use could also be a threat because the first 15 of each gender may be more willing to improve communications versus the latter group of 15 boys and girls. The validity of the study could have been improved by using a more equitable or random selection mechanism to determine which participants were in the English versus the street language groups.

A strength of the study was the control of the location; a neutral location was used for all interviews. However, because the location of the interviews was in a downtown office building, this could also be viewed as a weakness because it may have made some of the participants uncomfortable if they were not accustomed to being in that part of town. A neutral location within reasonable proximity to the participants' schools and homes would have given strength to the validity of the study.

Another strength was the careful confirmation, via 5-minute samples, that each of the counselors was using standard English or street talk correctly during their interviews.

**Data Analysis**

One of the weaknesses of the data analysis section in the paper was an overall lacking of information and detail. Another weakness was the information on the Likert scale. The authors should have been more specific in how they used the Likert scale and how they determined if a person rated a 4, 3, 2, or 1. In addition to this, the authors should have given some indication of how the raters were trained to review the taped-recorded sections.

One of the strengths of the data analysis was that the rating of the interviews was conducted by two people. Another strength is that when the raters could not agree on a rating they deferred to the principal investigator for a final decision. The authors did give a reference for the method that they used to evaluate self-disclosure.

Observation data analysis is usually descriptive information rather than a rating. It is usually given as a narrative summary, yet this study attempted a mixed-methods approach. The researchers quantified the data and the results rather than presenting and discussing the deepness of the disclosures. Therefore variety and content of disclosures were not indicated and this is seen as a weakness of the study. However, using quantitative methods can help to validate qualitative findings and this is a strength of this particular study.

**Results**

The presentation of data in tables and graphs is a strength of the results in this study. However, the p value for Type of Talk was .088, which is not less than an alpha = .05, the standard for social science, and therefore the data does not support the hypothesis as the study says it does. This is a weakness of the results in this study. In the Sex X Talk the p value equals .05 which equals the alpha of .05 and therefore does not show significance as the researchers are stating.

One strength of the statistical analysis is in the Sex data that shows p = .003 which is less than the alpha .05 and does indicate a significance of self-disclosure in girls as related to the type of talk a counselor uses. This data does not support the hypothesis of the study and the interpretations made are not justified.

In total the results supported the claim that girls were more willing speak to counselors than boys but were inconclusive on proving whether street talk or standard English can truly make teens reveal more in-depth information in their interview.

**Discussion**

Even though this study was conducted using interviews, observation of the recorded interviews was the method of data collection. The presentation of the data and the discussion lack descriptions of the interview environment, appearances of the counselors and the participants, as well as activities and behaviors during the interviews. The study shows the importance of “talk the talk” within counseling and therapy of various groups; however, the article does not discuss any threats or limitations, nor does it suggest recommendations for future study. We also found it lacking any mention of difficulties that may have occurred during the research. In the discussion, the authors state that the first interview is critical in determining the future path of the intervention, yet they do not substantiate this statement with any documentation or references.

One recommendation is that one of the counselors should have been male. Another recommendation would be to have a set of open ended questions that should be used by both counselors when interviewing. Also in the results there needs to be more documentation on the room environment of the interviews.

References

# Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2011). How to design and evaluate research in

# education (8th ed.). New York: McGraw-Hill.